

Remarks

1. Summary of Office Action

In the office action, (i) the Examiner rejected claims 1, 5, and 25 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,240,287 B1 (Cheng), (ii) the Examiner rejected claims 1-2, 4-7, and 25 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,790,955 (Tomoike), (iii) the Examiner rejected claim 24 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,618,597 (Choi), (iv) the Examiner rejected claims 7-18, 20, and 25-26 as being anticipated by U.S. Patent Application Publication No. 2003/0087653 A1 (Leung), (v) the Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being obvious over Tomoike, and (vi) the Examiner rejected claims 27-32 under 35 U.S.C. § 103(a) as being obvious over a combination of U.S. Patent No. 6,477,150 B1 (Maggenti) and U.S. Patent No. 6,226,277 B1 (Chuah).

2. Status of the Claims

Presently pending in this application are claims 1-32, of which claims 1, 6, 7, and 24-27 are independent and the remainder are dependent. The invention as recited in various ways in the pending claims provides a method and system for restricting participation in group communication sessions. Upon receipt of a request to establish a communication session between a group of subscribers, a determination is made that more than a threshold number of the subscribers are located in a common zone, and at least one excess subscriber (beyond the threshold) is responsively barred from participating in the group communication session.

3. Response to Rejections

a. Response to § 102(e) Rejection of claims 1, 5, and 25

The Examiner rejected claims 1, 5, and 25 as being anticipated by Cheng. Applicant respectively traverses this rejection, because Cheng does not teach (expressly or inherently) all of the limitations of any of these claims, as would be required by MPEP § 2131 to support an anticipation rejection. At a minimum, for instance, Cheng fails to teach limiting participation in a communication session between a plurality of subscribers in response to a determination that more than a threshold number of the subscribers are located in a common zone.

Cheng teaches that a base station has limited capacity and may therefore limit the extent of handoffs into its coverage area or originations in its coverage area. However, Cheng's disclosure does not involve the presently claimed functions of (i) receiving a request to establish a group communication session (i.e., a communication session between a plurality of subscribers), (ii) determining that more than a threshold number of *the subscribers requested to participate in a group communication session* are located in a common zone, or (ii) barring participation in a group communication session.

Notice that the invention as recited in claims 1 and 25, involves determining that a more than a threshold number of *the subscribers that are the subject of a group communication request* are located in a common zone. Cheng does not teach this. At best, Cheng merely teaches determining that a base station is at maximum capacity. But Cheng does not teach determining that more than a threshold number of subscribers that are the subject of a requested group communication session are located in a common zone. Chang therefore also does not teach responding to such a determination by barring at least one of the subscribers from

participating in the requested group communication session. Cheng thus fails to anticipate the invention as recited in claims 1, 5 and 25.

b. Response to § 102(b) Rejection of Claims 1-2, 4-7, and 25

The Examiner next rejected claims 1-2, 4-7, and 25 under 35 U.S.C. § 102(b) as being anticipated by Tomoike. Applicant respectively traverses this rejection, because Tomoike does not teach (expressly or inherently) all of the limitations of any of these claims, as would be required by MPEP § 2131 to support an anticipation rejection. At a minimum, for instance, Tomoike fails to teach limiting participation in a communication session between a group of subscribers on grounds that more than a threshold number of the subscribers in the group are located in a common zone, such as a common service area of a wireless communication system.

Tomoike's deficiency is similar to Cheng's. Like Cheng, Tomoike merely teaches limiting access in a wireless coverage area based on a threshold set for the coverage area. However, also like Cheng, Tomoike fails to teach limiting the number of subscribers that can participate in a group communication session with each other. In particular, Tomoike fails to teach (i) receiving a group communication request, (ii) determining that the group includes more than a threshold number of mobile subscribers operating in a common zone, such as a common wireless service area, and (iii) responsively excluding at least one of the subscribers located in the common zone from participating in the group communication session. Indeed, Tomoike does not teach any threshold analysis regarding members of a proposed group communication session as claimed.

This deficiency of Tomoike is perhaps illustrated best by considering the rejection of claim 2. In rejecting claim 2, the Examiner asserted that Tomoike teaches the elements of "determining where each of the subscribers is located" and "determining that N of the subscribers

are located in the common zone, wherein N is more than [the threshold] T." In particular, the Examiner pointed to the thresholds a' and b' of Tomoike, discussed at column 3, lines 49-67 of Tomoike. A review of Tomoike reveals, however, that those thresholds a' and b' are used simply as a basis for restricting admission of mobile stations generally into a given wireless serving system. Threshold a' is a load level at which roaming subscribers would face an admission restriction; and threshold b' is a load level at which all subscribers would face an admission restriction. These thresholds do not relate to group communication sessions as presently claimed. No determination is made in Tomoike that more than a threshold number of subscribers subject to a group communication request are located in a common zone.

For at least these reasons, Tomoike fails to anticipate the invention as recited in claims 1-2, 4-7, and 25.

c. Response to § 102(e) Rejection of Claim 24

The Examiner next rejected claim 24 under 35 U.S.C. § 102(e) as being anticipated by Choi. Applicant respectfully traverses this rejection, because Choi does not teach (expressly or inherently) all of the limitations of any claim 24, as would be required by MPEP § 2131 to support an anticipation rejection. At a minimum, for instance, Choi fails to teach allowing up to only a threshold number of mobile stations in a given sector to engage in a conference session with each other, and barring more than the threshold number of mobile stations from participating in the conference session.

Choi does not discuss conference sessions at all and therefore does not contemplate imposing any limit on how many mobile stations can engage in a conference session with each other. Choi specifically fails to teach the element of "barring more than a threshold number of mobile stations from participating in [a] conference session" with each other. At best, Choi

merely teaches imposing an RF capacity limit on a given sector as a whole. There is no suggestion in Choi to apply a threshold limit on the number of participants in a group conference. Consequently, Choi fails to anticipate the invention as recited in claim 24.

d. Response to § 102(e) Rejection of Claims 7-18, 20, and 25-26

The Examiner next rejected claims 7-18, 20, and 25-26 under § 102(e) as being anticipated by Leung. Applicant respectfully traverses this rejection, because Leung does not teach (expressly or inherently) all of the limitations of any claim 24, as would be required by MPEP § 2131 to support an anticipation rejection. At a minimum, for instance, Leung fails to teach limiting participation in a group communication session as recited in various ways in these claims.

Leung is directed to a multicast/broadcast system. According to Leung, when a group communication is sent from a source entity to a plurality of mobile stations in BSC's coverage area, the BSC determines how many target mobile stations are involved. If the number of target mobile stations does not exceed a threshold, then the BSC unicasts the communication on a dedicated air interface channel to each mobile station. On the other hand, if the number exceeds the threshold, then the BSC broadcasts the communication on a broadcast air interface channel, thereby conserving resources. *In either case, all of the target mobile stations receive the group communication. None are precluded from participating in the group communication session.* The only issue in Leung is whether they get the group communication through unicast or broadcast transmission.

For at least this reason, Leung fails to anticipate the invention as recited in independent claims 7, 25, and 26. Each of claims 8-18 and 20 depends ultimately from claim 7 and thus incorporates the elements of claim 7. Consequently, Leung also fails to anticipate the invention

as recited in claims 8-18 and 20. Applicant submits that the Examiner's assertions regarding the dependent claims are moot in view of the fact that Leung fails to anticipate the claims from which they depend.

e. Response to § 103 Rejection of Claim 3

The Examiner next rejected claim 3 under 35 U.S.C. § 103(a) as being obvious over Tomoike. Applicant traverses this rejection, because Tomoike fails to disclose or suggest all of the limitations of claim 3 as would be required to support an obviousness rejection under M.P.E.P. § 2143. At a minimum, for instance, Tomoike fails to suggest carrying out the claimed combination of functions including (i) receiving a group communication request, (ii) determining that the group includes more than a threshold number of mobile subscribers operating in a common zone, and (iii) responsively excluding at least one of the subscribers located in the common zone from participating in the group communication session. Indeed, Tomoike does not teach any threshold analysis regarding members of a proposed group communication session as claimed.

In setting forth this rejection, the Examiner pointed to Tomoike's teaching of thresholds a' and b' as being similar to the presently claimed invention. However, a reading of Tomoike reveals that thresholds a' and b' are merely load-thresholds used for deciding whether to admit roaming subscribers and "original" subscribers into a wireless coverage area. As noted above, Tomoike fails to teach consideration or application of any limitations on participation in group communication sessions. Thus, Tomoike fails to suggest the invention as recited in claim 3, and so a *prima facie* case of obviousness of claim 3 does not exist.

f. Response to § 103 Rejection of Claims 27-32

The Examiner next rejected claims 27-32 under 35 U.S.C. § 103(a) as being obvious over Maggenti in view of Chuah. In setting forth this rejection, the Examiner stated:

Maggenti discloses a service agent (See e.g. 218 (CM) of Fig. 2) coupled with a packet-switched network (See e.g. 214, "Data Packet and / or Data network" of Fig. 2, Co. 8, Lines 45-46) of the service agent (i.e. Communication Manager (CM), See e.g. Co. 4, Lines 49-59) inherently being programmed to receive a request to initiate a communication session among a group of subscribers and *to responsively the group* (i.e. net denotes a group of communication devices users, See e.g. Co. 4, Lines 60-) *a threshold number* (i.e. ten and / or 20 members in the first and second net respectively, See e.g. Co. 4, Lines 60-66) *of subscribers operating in a given service area and responsive to, truncate* (See e.g. Fig. 14, Co. 46, Lines 15-23) *the group to include number of subscribers operating in the given service area* (See e.g. Co. 5, Lines 25-45).

See the Office Action, at page 8, lines 21-25. (Italics emphasis added).

The language "to responsively the group a threshold number" and "responsive to, truncate the group to include number" in the Office Action appears to be overgeneralized or otherwise unclear. As far as Applicant can tell, the Examiner has asserted that Maggenti is relevant in that Maggenti teaches a group communication system in which a communication manager receives a group communication request and responsively works to set up a group communication session among designated participants. Applicant does not disagree that Maggenti teaches an arrangement for carrying out group communication sessions. However, the fact that Maggenti teaches carrying out group communication sessions does not suggest Applicant's invention.

Maggenti's disclosure of "nets" is not a disclosure of applying threshold limitations on the number of subscribers allowed to participate in a group communication session with each other. Rather, Maggenti's disclosure of "nets" is simply a disclosure of communication groups (e.g., buddy groups). Where Maggenti states at column 4, lines 60 et seq., that members of one net generally communicate with each other but do not communicate with others, that is not a

threshold limitation on the number of participants. It is merely a definition of groups. Similarly, where Maggenti refers at column 15, lines 55-56, to "users' access to nets," that simply refers to whether users are members of groups in the first place.

Further, although the Examiner has correctly noted that Maggenti uses the word "truncate" (or "truncating") at column 46, line 20, Maggenti's use of that word has nothing whatsoever to do with the number of subscribers permitted to participate in a group communication session. Rather, Maggenti refers simply to "truncating" a portion of a value so as to produce a sync-check word used for allowing late entry/synchronization to a transmission that is already in progress. Maggenti does not disclose anything regarding limiting the number of subscribers allowed to participate in a group communication session, as presently claimed.

Further, Maggenti's disclosure of allowing only a single user to transmit information to other net members at any given time (at column 5, lines 25-45) is also not relevant to the presently claimed invention. That disclosure in Maggenti merely defines a half-duplex floor-control function, where only one member of the group can speak at a time. It does not mean that any limitation is be placed on the number of users who can participate in a group communication session.

The Examiner additionally acknowledged that Maggenti does not teach determining that a group includes more than a threshold number of subscribers operating in a given service area. In an effort to find that function, the Examiner then turned to Chuah, which teaches limiting a remote host's access to a cellular coverage area. This raises the same deficiency as described above with respect to the other cited references, however: neither Maggenti nor Chuah suggest applying a limitation on the number subscribers allowed to engage in a group communication session with each other. More particularly, considering claim 27, neither Maggenti nor Chuah

suggest *responding* to a determination that more than a threshold number of subscribers subject to a group communication request are operating in a given service area by *truncating the group to include at most the threshold number of subscribers operating in the given service area*, as claimed. Further, Applicant sees no logical basis to modify either Maggenti or Chuah to reach this result.

For at least these reasons, Applicant submits that Maggenti and Chuah, whether considered alone or in combination with each other, fail to suggest the invention of claims 27-32. Consequently, a *prima facie* case of obviousness of these claims does not exist.

4. Conclusion

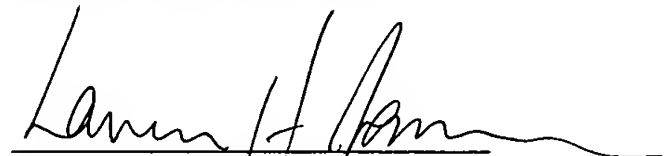
For the foregoing reasons, Applicant submits that all of the pending claims are condition for allowance. Therefore, Applicant requests favorable reconsideration.

Respectfully submitted,

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